**Conclusion** LIN led to significant absolute and % improvement in AP vs PBO overall and stratified by baseline AP severity. Absolute magnitude of improvement in AP significantly correlated with baseline AP severity; however, all groups had similar % improvement in AP. Pt-rated relief of AP was consistent across baseline AP severity groups. Support: Ironwood Pharmaceuticals Inc & Forest Laboratories Inc. Editing: CMC funded by Almirall

Disclosure of Interest J. Johnston Shareholder of: Ironwood Pharmaceuticals, Employee of: Ironwood Pharmaceuticals, W. Chey Consultant for: Ironwood Pharmaceuticals and Forest Laboratories, B. Lavins Shareholder of: Ironwood Pharmaceuticals, Employee of: Ironwood Pharmaceuticals, S. Shiff Shareholder of: Forest Laboratories, Employee of: Forest Laboratories, C. Kurtz Shareholder of: Ironwood Pharmaceuticals, Employee of: Ironwood Pharmaceuticals, J. MacDougall Shareholder of: Ironwood Pharmaceuticals, Employee of: Ironwood Pharmaceuticals, X. Jia Shareholder of: Forest Laboratories, Employee of: Forest Laboratories, H. Schneier Shareholder of: Forest Laboratories, Employee of: Forest Laboratories, M. Currie Shareholder of: Ironwood Pharmaceuticals, Employee of: Ironwood Pharmaceuticals

PWE-029

# CHARACTERISATION AND ASSOCIATION OF ABDOMINAL PAIN WITH ANXIETY OR DEPRESSION IN PATIENTS WITH IRRITABLE BOWEL SYNDROME WITH **CONSTIPATION (IBS-C)**

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<sup>1</sup>E M Quigley, <sup>2</sup>B Lavins, <sup>3</sup>S J Shiff, <sup>3</sup>K Shi, <sup>2</sup>X Hao, <sup>2</sup>C Kurtz, <sup>2</sup>M Currie, <sup>3</sup>H Schneier, <sup>2,\*</sup>J Johnston. <sup>1</sup>Alimentary Pharmabiotic Centre, Cork, Ireland; <sup>2</sup>Ironwood Pharmaceuticals, Cambridge; <sup>3</sup>Forest Research Institute, Jersey City, United States

Introduction The Short-Form McGill Pain Questionnaire (SF-MPQ-2) assesses and characterises pain. It consists of 22 items (rated from 0 = none to 10 = worst possible) in 4 subscales (continuous pain, intermittent pain, neuropathic pain [sensory descriptors], and affective descriptors [emotional aspects of pain, eg cruel/exhausting]). The SF-MPQ-2 has not yet been validated in abdominal pain and, therefore, its use in functional gastrointestinal disorders like IBS is limited. Also, little is known about pain quality in IBS. We used the SF-MPQ-2 to characterise baseline abdominal pain in IBS-C and to determine whether subscale scores were associated with significant baseline anxiety or depression.

Methods Over a 2-wk baseline period in 2 Phase 3 trials of linaclotide (LIN), patients (pts) with IBS-C (Rome II criteria; N = 1523) rated daily their worst abdominal pain over the past 24 h on an 11-point scale (0 = none, 10 = very severe) and completed the SF-MPQ-2. Summary statistics were calculated for each SF-MPQ-2 item and subscale. Pts were grouped by their highest-scored pain subscale and the pain subscale reported by the highest % of pts was defined as the predominant pain type. Association of each subscale with baseline abdominal pain score was determined by ANCOVA. Baseline anxiety and depression were assessed on the Hospital Anxiety and Depression Scale (HADS-A and HADS-D); pts were categorised as normal/borderline (0-10) or abnormal (11-21). Association of each subscale with abnormal HADS was analysed by logistic regression.

Results Continuous pain was the predominant pain type (77% of pts); the item with the highest average score in this subscale was cramping pain. Baseline abdominal pain score was significantly associated with McGill continuous pain (p < 0.0001), intermittent pain (p = 0.004) and affective descriptors (p = 0.012), but not with neuropathic pain (p = 0.526). Only the affective descriptors subscale was significantly associated with abnormal HADS score (Table).

#### **Abstract PWE-029 Table**

	Pain subscale	Odds ratio		
Abnormal HADS		Point estimate	95% CI	pª
HADS-A	Continuous	1.04	0.96, 1.13	0.35
	Intermittent	0.96	0.89, 1.04	0.33
	Neuropathic	1.00	0.92, 1.09	0.99
	Affective descriptors	1.15	1.07, 1.23	< 0.0001
HADS-D	Continuous	1.11	0.94, 1.30	0.23
	Intermittent	0.92	0.80, 1.05	0.21
	Neuropathic	1.12	0.97, 1.29	0.12
	Affective descriptors	1.24	1.10, 1.41	< 0.001

<sup>a</sup>Wald χ<sup>2</sup> test

**Conclusion** These data indicate that continuous pain is predominant in IBS-C and that anxiety and depression are related to the emotional response to pain, not to pain itself. Support: Ironwood Pharmaceuticals Inc & Forest Laboratories Inc. Editing: CMC funded by Almirall

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## PWE-030 AUDIT OF BOWEL CANCER PRESENTATION IN A **COMMUNITY HOSPITAL SETTING**

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1.\*J Tharakan, <sup>1</sup>I Tiwari, <sup>1</sup>D Beesley. <sup>1</sup>Endoscopy Unit, St.Michael's Hospital, Braintree, UK

**Introduction** Most data on bowel cancer presentation are from an acute hospital setting. There have not been many reports from a community hospital.

Our audit looked into the presentation of bowel cancer from a community hospital setting.

**Methods** We audited the results of bowel cancer presentation from our community hospital with data collected over a two year period from June 2010 to May 2012.

We analysed the presenting symptoms, the male:female ratio, ages and location of bowel cancer.

Results 1795 colonoscopies and 2589 flexible sigmoidoscopies were performed at our hospital during this two year period.

The total number of colonic cancers found were 87(47 found on colonoscopy and 40 on flexible sigmoidoscopy), giving an incidence of about 2%.

The ages ranged from 33 years to 86years with 49 males and 38 females.

The main presenting symptoms were analysed and were as fol-

Anaemia in 16 patients Abdominal pain in 8 patients.

Per rectal (PR) bleeding in 45 patients Change in bowel habit in 25 patients.

We followed the established norm of dividing colon cancers proximal to the splenic flexure as right colonic and distal to this as left colonic.

On this basis, the locations of the bowel cancers were found to be 19 in the right colon and 68 in the left.

We attempted to corelate clinical findings with site of tumours. It was observed that anaemia was more commonly associated with a right colonic lesion as compared to PR Bleeding which was seen with a left sided pathology.

Abdominal pain and change in bowel habit were not strongly associated with any particular location for a tumour.

Conclusion Our audit data of colon cancers from a community based setting is one of the few to be published in recent years.

We have shown an incidence of about 2% of colon cancers from this setting.

There appears to be a definite association between PR bleeding and left colon tumours as compared to anaemia which appeared to be associated with right colonic lesions.

The overwhelming majority of cases referred to us were lesions located in the left colon suggesting that one-off flexible sigmoidoscopy as a tool for bowel cancer screening should have a very good diagnostic yield.

Disclosure of Interest None Declared.

PWE-031

HOW MANY COLORECTAL CANCERS (CRC) HAVE BEEN MISSED IN THE 36 MONTHS AFTER 'NORMAL' LOWER GI ENDOSCOPY (COLONOSCOPY/FLEXIBLE SIGMOIDSCOPY)

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1,\*K Keshk, 1J T Green, 1G Swift. 1Department of gastroenterology, Cardiff and Vale University Health Board, Cardiff, UK

Introduction Colonoscopy and flexible sigmoidscopy are the primary tools for diagnosis of CRC, although they have false negative rates of 2-6%.1 The aim of this study was to estimate how frequently lower GI endoscopy might have failed to detect cancer within 36 months preceding a confirmed diagnosis of CRC.

Methods We identified 253 patients diagnosed with CRC between Sep 2010 - Aug 2012 from the database of cellular pathology in Cardiff and Vale University Health Board. Medical records were reviewed for the results of colonoscopy, flexible sigmoidscopy, histology and CT imaging. Patients with missed cancer were those who had had a 'normal' (if no cancer discovered) lower GI endoscopy procedure 1-36 months before diagnosis. We examined the characteristics that might be risk factors for missed CRC.

Results Among the 253 patients included in the study, cancer was located in the rectosigmoid colon (78.5%), descending colon (2.7%), splenic flexure (1.9%), transverse colon (4.3%), hepatic flexure (1.1%) and right colon (9.4%). We identified 10 (5 females, 5 males, mean age 80 years, range 42-92) patients (3.9%) who had had colonoscopy and/or flexible sigmoidscopy that had not shown CRC 1–36 months prior to the final diagnosis. In the missed cancer group only one flexible sigmoidscopy was incomplete due to suboptimal bowel preparation and difficult sigmoid bend. Nine patients had false negative lower GI endoscopy. The median diagnostic delay was 13.6 months (1–36). Two of the missed cancers were diagnosed with Dukes' C colon cancer, one with Dukes' D colon cancer and one presented with emergency complications due perforation. Of the ten missed cancers, eight were in rectosigmoid colon, one in the transverse colon and one in the ascending colon.

**Conclusion** Bressler *et al* reported 2–6% missed CRC at colonoscopy performed 6–36 months prior to a final diagnosis of cancer. Our miss rates are in line with previous studies. However, the available literature suggests that lesion miss rate is higher for proximal colonic tumours. In our study, the missed cancers were predominantly in the rectosigmoid colon (3.1%) and were minimal in the right colon (0.4%). The reasons for missed cancers in our study are likely related to incomplete procedure, suboptimal bowel preparation, inadequate

technique, failure to recognise flat lesions and diverticulosis. Optimal withdrawal technique, good luminal view, frequent position change, high quality bowel prep and adequate time for inspection are of utmost importance to minimise the rate of missed CRC.

Disclosure of Interest None Declared.

### REFERENCE

1. Bressler B, et al. Rates of new or missed colorectal cancer after colonoscopy and their risk factors: a population—based study. Gastroenterology 2007; 132(1):96–102

WHAT IS THE IMPACT OF THE INTRODUCTION OF THE NHS BOWEL CANCER SCREENING PROGRAMME ON THE WORKLOAD OF A COLORECTAL SURGERY UNIT AT A **DISTRICT GENERAL HOSPITAL?** 

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1.\*K E Carney, 1R Thomas, 1H Lambson, 1A Agarwal, 2W Copping, 1D Borowski, 1D Garg, <sup>1</sup>T Gill, <sup>1</sup>M Tabaqchali. <sup>1</sup>Colorectal Surgery; <sup>2</sup>Bowel Cancer Screening, University Hospital North Tees, Stockton on Tees, UK

**Introduction** A study to assess the impact of the introduction of the National Bowel Cancer Screening Programme (BCSP) on the workload of a colorectal unit in a medium-size general hospital covering a population of 400,000, and to compare it to the initially projected figures.

Methods We used the BCSP database, hospital episode statistics and the locally held colorectal cancer Multi-Disciplinary Team (MDT) database to identify all patients with newly diagnosed colorectal cancer diagnosis between April 2007 and November 2012. Demographic data, pathological data, MDT outcomes and treatment details were examined.

Results During the study period of 66 months, a total of 194 patients with screening-detected colorectal cancer were referred to the local MDT (mean 32 cases per annum). Of these, 144 patients had a cancer resection (74.2%, mean 24 cases per annum). The remaining 50 cases included unfit patients as well as those with metastatic disease at presentation and patients with polyp cancers not requiring resection. Furthermore, there was an increase in numbers seen from 2010 onwards, coinciding with the increase in the screening age limit to 75 years.

**Conclusion** This study measures the effect of the national BCSP on the surgical workload and quantifies the proportion of patients requiring surgery. It was projected that 33 people per annum newly diagnosed with colorectal cancer would be referred from the BCSP centre to the local MDT<sup>1</sup>; this study confirms this projection.

**Disclosure of Interest** None Declared.

1. BCSP Publication No. 3 (2008): Guidance for public health and commissioners.

# Endoscopy

PWE-033 THE INCIDENCE AND COST OF UNEXPECTED HOSPITAL ATTENDANCE FOLLOWING ELECTIVE OUTPATIENT FLEXIBLE SIGMOIDOSCOPY

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1.\*H Gordon, 1J H Brindley, 1C Zheng, 1J Graby, 1M A Abdullah, 1J Mawdsley, 1I Beveridge, <sup>2</sup>K Monahan. <sup>1</sup>West Middlesex University Hospital, London, UK; <sup>2</sup>Gastroenterology, West Middlesex University Hospital, London, UK

**Introduction** Outpatient flexible sigmoidoscopy is an increasingly utilised investigation shown to be effective in the detection and prevention of bowel cancer. The procedure is thought to entail a low risk of complications. However, recent literature suggests the complication rate of other endoscopic procedures may be up to 10 fold